

## SECTION C – PERFORMANCE WORK STATEMENT

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## SECTION C – PERFORMANCE WORK STATEMENT

### C.1. BACKGROUND

The United States Bureau of the Census is a bureau of the U.S. Department of Commerce (DOC) and is one of several principal federal agencies that provide statistical services. The Census Bureau is charged with providing ongoing measures of the U.S. population and its economy. The Census Bureau, which supports the economic and political foundations of the United States, provides a critical service to the nation. Therefore, reliable collection, preparation, tabulation and dissemination of demographic and economic statistics are vital to the Census Bureau's overall mission and strategic goals and objectives.

The Data Access and Dissemination System (DADS) Program is the primary provider of dissemination services via the Internet for the Census Bureau and a significant provider of tabulation services.

DADS comprises a suite of inter-related systems, including the American FactFinder system for dissemination of data and data products, the Data Product Production (DPP) system for Census 2000 product tabulations, and the American FactFinder Advanced Query system for Census 2000 ad hoc queries. The DADS Program is responsible for building, maintaining, and operating these systems.

DADS Program Business Operations uses of these systems to provide tabulation and dissemination services. Tabulation services refer to the activities related to aggregating data collected on individual responses to a survey or census into summarized statistical data suitable for public release. Dissemination services refer to the activities related to the internal staging and release of approved statistics for posting on the Internet. These services include the provision of interim results or output so that other areas of the Census Bureau can process and release data in different media and formats, (e.g. CD-ROM, DVD, File Transfer Protocol [FTP], Adobe Acrobat [PDF] for printed publications). The DADS Program currently provides tabulation and dissemination services for the decennial censuses and dissemination services for the economic censuses and surveys, annual economic surveys, the annual release of the American Community Survey, and the annual release of Population Estimates.

DADS was developed in multiple phases. In 1995, the Census Bureau launched DADS as a pilot project. Following the pilot, a contract was awarded to IBM in April 1997. During the first production phase, the pilot produced systems to support the 1990 Census, the Census 2000 Dress Rehearsal, the 1997 Economic Census, and the demonstration phase of American Community Survey. During the second production phase, the pilot updated and extended the systems to include Census 2000 data and additional Census Bureau data sets. The DADS Program continues to broaden and extend its current systems to respond to the public's growing demands for demographic and economic information.

### C.2. PROGRAM MISSION, GOALS AND OBJECTIVES

The mission of the DADS Program is to prepare, tabulate, and disseminate data and data products that are complete, accurate, and formatted properly, on time and within budget. The Contractor is considered a full partner with the Census Bureau in all activities leading to the success of the DADS Program.

The goals and objectives of the DADS Program are stated in Table C.2-1 and directly support the following Census Bureau strategic goals and objectives:

- Produce new information using existing data sources by developing cutting-edge techniques and promoting knowledge sharing (Goal/Objective 1.4)

- Meet program collections, processing, and dissemination requirements by providing a secure information technology environment (Goal/Objective 4.4)
- Improve timeliness, accuracy and relevance of our surveys and censuses through new applications of technologies and methodologies and share them globally (Goal/Objective 4.5)
- Meet the changing needs of our customers by enhancing data products, services and dissemination (Goal/Objective 4.6).

**Table C.2-1 DADS Program Goals and Objectives**

<b>Goals</b>	<b>Objectives</b>
1. Maximize the efficiency, timeliness and accuracy of the tabulation and dissemination products and services.	1.1 Meet all legal deadlines and external commitments. 1.2 Contribute to the overall improvement of the quality and accuracy of the data and data products. 1.3 Reduce the elapsed time required to produce releasable data and data products. 1.4 Simplify and standardize the processes for tabulation and dissemination. 1.5 Maintain continuity of tabulation and dissemination business operations in a changing environment.
2. Minimize the cost of tabulation and dissemination.	2.1 Implement process improvement initiatives to drive down the cost of tabulation and dissemination. 2.2 Reduce cost through collaboration with other Census Bureau organizations that perform tabulation and dissemination. 2.3 Leverage existing Census Bureau resources, processes and systems.
3. Increase user satisfaction with tabulation and dissemination products and services.	3.1 Ensure management and control of data privacy and confidentiality. 3.2 Maintain high system availability. 3.3 Increase user satisfaction with ability to find and acquire Census Bureau data and data products. 3.4 Increase user satisfaction with the usefulness and relevance of Census Bureau data and data products. 3.5 Develop new, more useful data products and services using existing Census Bureau data. 3.6 Strengthen the effectiveness of secondary distributors of Census Bureau data and data products.

### **C.3. CONTRACT SCOPE**

The Contractor, as an independent entity and not an agent or employee of the Government, **shall** furnish to the Government all necessary labor, services (non-personal), and materials (except as specified by the Government) required to accomplish the efforts as specifically set forth in this Performance Work Statement.

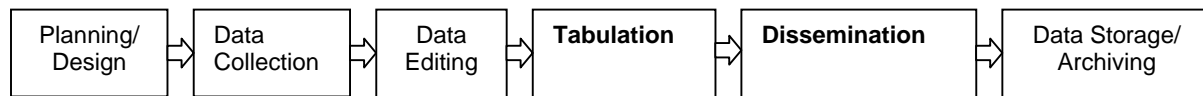
This solicitation, which is referred to as DADS II, requires the Contractor to provide comprehensive support to DADS and to maintain and enhance systems necessary for the 2010 Decennial Census and other Census Bureau programs. The Government recognizes that DADS components are approaching obsolescence. This solicitation also requires the Contractor to propose, as an option, replacement of existing systems to form an integrated solution. (See Section C.6 – Option for Replacement System)

Following is the broad scope of the DADS Program in which the Contractor and the Government work as full partners:

- Business Operations - Tabulation
- Business Operations - Dissemination
- DADS Requirements Management
- System Life Cycle Management
- System Engineering and Architecture
- Program Management

These major tasks are discussed in Section C.4, *Technical Requirements*.

Figure C.3-1 depicts a generalized information flow for the Census Bureau's census and survey work, and demonstrates where DADS Business Operations fit into overall bureau operations. Planning/Design covers decision-making that will govern the when, what and how of all subsequent processes. Although the DADS Program does not have responsibility for Planning/Design, the program is a participant when tabulation and dissemination processes are the subject of discussion. The Data Collection and Data Editing processes cover upstream activities for which DADS has no responsibilities or does not participate.



**Figure C.3-1 Census or Survey Business Process Flow**

It is probable that the DADS Program will support additional censuses and surveys, and expand product offerings through the duration of this contract. The Contractor is also responsible for services not described but directly related to these tasks.

The current DADS suite of inter-related systems is shown in Table C.3-2. These systems provide the automated capabilities required to support tabulation and dissemination. Additional information on DADS is provided in the documents listed in Table C.3-3.

**Table C.3-2 DADS Current Suite of Systems**

System	Tabulation	Dissemination	Status
Data Product Production System	Yes	No	Active
American FactFinder	No	Yes	Active
Advanced Query	Yes	Yes	Active
Virtual Table Generator	No	Yes	Active
Printed Reports System	No	Yes	Inactive

**Table C.3–3 Section J Documents.**

<b>Section</b>	<b>Document Name</b>	<b>Status</b>
J-1	System Requirements Document	In Draft RFP
J-2	Requirements Traceability Matrix	In Draft RFP
J-3	Award Fee Determination Plan	In Final RFP
J-4	Contract Surveillance Plan	In Final RFP
J-5	Performance Measures	In Draft RFP
J-6	Earned Value Management Plan	In Final RFP
J-7	Security Plan	In Final RFP
J-8	IT Architecture and Standards	In Final RFP
J-9	DADS Overview	In Draft RFP
J-10	Change Management Strategy	In Final RFP
J-11	Risk Management Plan	In Final RFP
J-12	Quality Management Plan	In Final RFP
J-13	Requirements Management Plan	In Final RFP
J-14	Census Bureau Security Test and Evaluation Document	In Final RFP
J-15	Financial Reports Formats	In Final RFP

The DADS II contract, which will cover nine (9) years and nine (9) months, is performance based. It will have a nine (9) month base period, six one (1) year options, and three one (1) year award term options. The full contract consists of three phases:

**Base Period:**

Phase 1 - Transition Planning (October 1, 2006 – December 31, 2006)

Phase 2 - Transition (January 1, 2007 – June 30, 2007)

**Optional Periods:**

Phase 3 - Production (July 1, 2007 – June 30, 2016)

After contract award, a Performance Work Statement will be issued on an annual basis that will definitively state the requirements for the next option year. (See Section C.5.1, *Annual Proposal Process*.) The scope of Phase 2, Transition, will depend on the outcome of Phase 1, Transition Planning.

#### **C.4 TECHNICAL REQUIREMENTS**

This section describes the broad scope of the DADS Program, in which the Contractor and the Government work as full partners. The DADS Program has identified technical and subject matter skill sets that are required to perform the work specified in this Performance Work Statement. These skill sets include the following:

**Technical Skill Sets**

- Systems Analysis
- Systems Architecture

- Data Modeling
- Database Administration
- Relational Database Management System (i.e., Oracle®)
- Spatial Database Management (i.e., ArcSDE®)
- Geographic Information System (i.e., ArcIMS®)
- Software Engineering
- Software Design
- Software Coding (i.e., Java®)
- Software Configuration Tools (i.e., ClearCase®)
- User Interface Design
- Usability Testing
- Systems Administration
- IT Security
- Program Management Tools (e.g., Microsoft Project®, wInsight®)
- Requirements Management Tools (i.e., DOORS®)

#### Subject Matter Skill Sets

- Statistical Techniques
- Demographic Statistical Measures
- Economic Statistical Measures
- Geographic Concepts
- Table Design Principles
- Cartographic (Map) Design Principles
- Data Visualization Concepts
- Census and Survey Operations

#### **C.4.1 Business Operations – Tabulation**

Tabulation is the process by which record-level data from confidential microdata files, delivered from the data editing process, are aggregated into approved product formats suitable for public release. Typical product formats for release of this first level of data aggregation includes detailed tables, base tables and data sets. These products provide the most detailed aggregations of data made available to the public. The tabulation output also serves as an input to dissemination processes that may apply a second level of aggregation to create derived products. This second level of aggregation is considered a dissemination process rather than a tabulation process because microdata do not serve as the input.

Tabulation requires a complex overlay of techniques to prevent the disclosure of confidential census and survey information. Tabulation also requires varied and sometimes complex statistical techniques for aggregate calculations.

The Census Bureau demands 100% accuracy in its tabulation results. Efforts to achieve this objective require extensive quality assurance activities. Significant components of both a tabulation system and intermediate tabulation products are created specifically and only for the purposes of quality control.

The current DADS tabulation system, known as the Data Product Production (DPP) system, was developed to perform the tabulations required to support Census 2000. The DADS Program will

be responsible for the same task for the 2010 Census. It is the program's intent to provide tabulation services for other censuses and surveys during the DADS II contract period.

For more information on the tabulation data products for which the DADS Program is responsible, see Section J-1, *System Requirements Document*.

For more discussion of tabulation processes see Section J-9, *DADS Overview*. For detailed tabulation requirements see Section J-2, *Requirements Traceability Matrix*.

The Contractor **shall** conduct tabulation activities as required by the DADS Program. The Contractor **shall** process microdata and supplemental data inputs, including conducting Extract Transform and Load (ETL) and data verification. The Contractor **shall** coordinate with DADS Government staff and input providers to determine mutually agreed upon formats for data inputs, and **shall** record these agreements as formal specifications. The Contractor **shall** coordinate with DADS Government staff and output recipients to determine mutually agreed upon formats, and **shall** provide support to the census or survey sponsor to facilitate its review of tabulated outputs. Upon request, the Contractor **shall** provide comments to the census or survey sponsor on the design and content of tabulation data products.

At the Government's direction, the Contractor **shall** operate the tabulation system to generate production data products. Additionally, the Contractor **shall** sufficiently document the operation of the tabulation system so that the Government can operate the system to generate production data products, if it so chooses. The Contractor **shall** respond promptly to any system problems that may arise during production processing.

#### **C.4.2 Business Operations – Dissemination**

DADS dissemination operations consist of the internal staging and subsequent release of approved statistics via the Internet. Approved statistics are typically presented in the form of tables, maps, or charts intended for human viewing and interaction or in the form of data files designed for computer manipulation. Dissemination operations also include the provision of interim outputs for other areas of the Census Bureau to process and release in different media and formats (e.g., CD-ROM, DVD, FTP and PDF for printed publications). Additionally, operations include user-support services related to DADS dissemination applications (e.g., development of training materials, management of user feedback).

Dissemination takes as its input tabulated data along with product specifications, metadata, and geographic files. The creation of many product outputs requires additional aggregation of tabulated data inputs. These outputs are referred to as derived products because they are derived from the most detailed tabulated data publicly available.

The actual release of data and data products follows a highly variable schedule, reflecting the fluctuating rate at which data tabulations are produced for various programs. Phases of release for a single survey may span months or even years. Some typical release strategies are shown in Table C.4.2-1. Additionally, DADS must manage on-going releases for multiple programs at any one time, including the release of revised data or metadata to correct problems discovered with previously released data or data products.

**Table C.4.2-1 Typical Dissemination Release Strategies**

Release Strategy	Program or Product	Example
By geographic area	Census 2000 Summary File 4	Data products for several states released each week, with nation-level geographies crossing state lines included in the final week's release
By geographic type	Population Estimates Program	Data released first for the nation and for states, next for counties, and finally for cities and towns
By subject or topic	American Community Survey	Data released first for core products covering basic subject characteristics (e.g., age, sex) and several months later for additional products on same subjects but iterated for major race groups

Dissemination for just one program can involve data files containing millions of records, and require the creation of and public access to thousands of derived products. Dissemination typically requires a variety of data products and even different Web sites depending upon the targeted end user, spanning the spectrum from surfers to expert data users. Dissemination in multiple languages is required for some programs.

The Census Bureau demands a high-level of accuracy in its dissemination activities. Therefore, the DADS Program requires that data and data products be staged to an internal environment prior to public release to facilitate the review of data content for accuracy and completeness.

During the review period, DADS must support many redeliveries of corrected data or metadata.

Dissemination requires systems to make data products and to provide access to these products. The current DADS dissemination systems are American FactFinder, Advanced Query, Virtual Table Generator, and Printed Report System. These systems currently support dissemination operations for the following programs: Decennial Census, American Community Survey, Economic Census and Surveys, and Population Estimates Program. (See Table C.3-2)

For more information on the dissemination releases for which the DADS Program is responsible and dissemination requirements, see Section J-1, *System Requirements Document*. For more information on dissemination processes, see Section J-9, *DADS Overview*.

It is probable that the number of censuses and surveys that rely on DADS for dissemination services will increase during the period of performance. It is the program's intent to increase the usability and capabilities of its dissemination applications during the DADS II contract period. It is the program's expectation to improve responsiveness to internal data provider's needs for more frequent and flexible service.

The Contractor **shall** conduct dissemination activities as required by the DADS Program. The Contractor **shall** process data and metadata inputs, including conducting ETL and data verification. The Contractor **shall** coordinate with DADS Government staff and input providers to determine mutually agreed upon formats for inputs and **shall** record these agreements as formal specifications. The Contractor **shall** coordinate with DADS Government staff and output



recipients to determine mutually agreed upon formats and **shall** provide support to the census or survey sponsor to facilitate the sponsor's review of pre-release product outputs. Upon request, the Contractor **shall** provide comment to the census or survey sponsor on the design and content of data products.

The Contractor **shall** maintain and enhance DADS dissemination applications as required to meet dissemination commitments. The Contractor **shall** operate the dissemination system to generate data products and to provide access to data products. Additionally, the Contractor **shall** sufficiently document the operation of the dissemination system so that the Government can operate the system to create and disseminate production data and data products. The Contractor **shall** respond promptly to any system problems that may arise during production processing.

### C.4.3 DADS Requirements Management

The Government identifies stakeholder needs and operational capabilities and records them as DADS program requirements. Program requirements include high-level statements as well as low-level statements and data product specifications. The DADS high-level program requirements are described in Section J-1, *System Requirements Document*, and presented in Section J-2, *Requirements Traceability Matrix*. The *System Requirements Document (SRD)* describes DADS business processes and major data products and shows the traceability of program requirements to DADS goals and objectives.

The Government's approach to requirements development and management is described in Section J-13 *Requirements Management Plan*. The Government's *Requirements Management Plan (Government's RMP)* presents the processes for establishing the initial requirements baseline, managing requirements changes, and maintaining requirements traceability throughout the system life cycle. Requirements changes are anticipated throughout the system life cycle as a result of ongoing Business Operations. Requirements changes support new and updated data products and product specifications and are responsive to end-user concerns.

The Government will have primary responsibility for developing and maintaining program requirements. The Contractor **shall**, at the direction of the Government, assist the Government in the development and maintenance of program requirements.

The Contractor **shall** submit with the response to this solicitation the Contractor's *Requirements Development and Management Plan* (Contractor's *RDMP*) that documents the Contractor's requirements development and management process, which integrates with the Contractor's system life cycle. The Contractor **shall** use its requirements development and management process and evolve the process, as necessary, to adapt to the Government's business needs. The Contractor's *RDMP* **shall** adhere to policies described and referenced in the Government's *RMP*.

The Contractor's requirements development and management process **shall** be used to derive the system requirements from the program requirements. The Contractor **shall** document the system requirements in an expanded *Requirements Traceability Matrix* and describe them in the Contractor's *System Requirements Specification (SRS)*. The Contractor's requirements development and management process **shall** provide bi-directional traceability between the program requirements and the system requirements. The Contractor's requirements development and management process **shall** manage additions, changes, and deletions to system requirements as change events occur. The Contractor's requirements development and management process **shall** substantiate that the applications, data and data products conform to requirements. The

Contractor **shall** use its requirements development and management process to establish, maintain, and keep current the system requirements baseline. The Contractor's requirements development and management process **shall** include technical, cost, and schedule impact analysis of proposed modifications to the requirements.

The Contractor **shall** support the Government in selecting, prioritizing, and allocating existing or new requirements to baseline an application release.

During Phase 1, Transition Planning, the Contractor **shall** observe, interface with, and work with the incumbent workforce, the Government, and other key DADS personnel to gain in-depth knowledge of the DADS Program and existing system requirements.

As part of the annual proposal process, the Contractor **shall** provide an expanded *RTM* and the Contractor's *SRS*. The Contractor's *SRS* **shall** be consistent with the Government's *RMP* and the Government's *SRD*. In addition, the Contractor **shall** provide a *Requirements Assessment Report* that analyzes the next option year's requirements and identifies which program requirements are fully implemented in existing systems, partially implemented in existing systems, and not yet implemented. The Contractor's *Requirements Assessment Report* **shall** include recommendations, with technical, cost, and schedule impact, for proposed allocation and reallocation of requirements to future software releases.

Upon Government review and approval of the expanded *RTM* and the Contractor's *SRS*, the Contractor **shall** bring the system requirements under baseline control and apply the change control discipline, as defined in the Contractor's *RDMP*, to affect all modifications to the baseline.

The Contractor **shall** establish and maintain an automated requirements repository that includes the requirements from the original and expanded *RTM*, tracks requirements by release and version, and is accessible by the Government. The Contractor **shall** provide requirement data updates to the Government in a file format that is compatible with the Government's automated requirements repository tool, Telelogic's DOORS®.

The Contractor **shall** implement DADS Program requirements and approved changes to DADS program requirements.

#### **C.4.4 System Life Cycle Management**

The DADS Program employs a system life cycle methodology with phases similar to those of a typical software engineering system life cycle: requirements, analysis, design, construction, testing, user acceptance, deployment, and operate/maintain. The DADS Program uses the system life cycle to organize and accomplish its work, regardless of whether the work is the development of software applications or the use of such applications to produce and disseminate data and data products.

The Government expects that all bidders on the DADS II contract are well versed in system life cycles as they apply to software engineering, but may be less clear on how system life cycle apply to DADS Business Operations. To add clarity, Table C.4.4-1 provides examples of work undertaken and questions addressed during various systems life cycle phases for both software releases and data product releases.

**Table C.4.4-1 DADS System Life Cycle Examples**

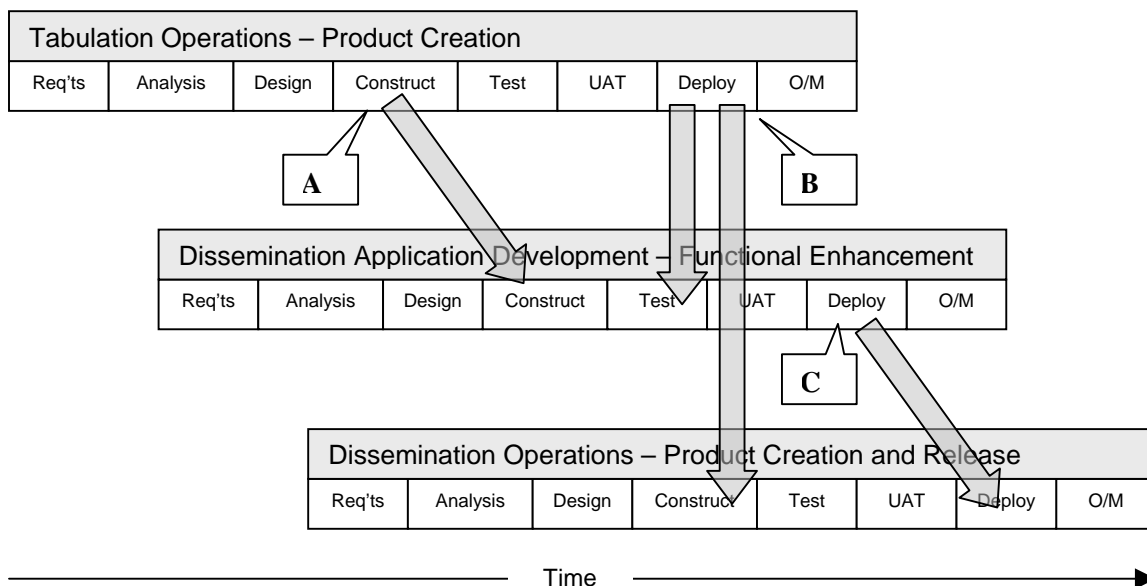
<b>Life Cycle Phase</b>	<b>Software Release</b>	<b>Data Product Release (Business Operations)</b>
<b>Requirements</b>	- Which functions will end-users need to manipulate or view the data product?	- Will data product be released in a single phase or in multiple phases? - Will DADS create data product or just assemble / distribute data product?
<b>Analysis</b>	- Which system functions are absent or need enhancement?	- Which ETL scripts need updating or creating? - Which product creation processes need modification?
<b>Design</b>	- Produce user interface design for new/enhanced function. - Produce code and database design to implement function.	- Define specific changes to be applied to product creation processes.
<b>Construction</b>	- Write and unit test software. - Modify database structures, as needed.	- Create ETL scripts. - Load data and metadata inputs. - Run product creation processes.
<b>Testing</b>	- Does new/enhanced function perform as specified? - Are existing functions unaffected by changes? - Are performance benchmarks met?	- Are data values within data product summarized accurately? - Do text strings within data product meet specifications?
<b>User Acceptance</b>	- Government verifies that function meets expectation.	- Government verifies the accuracy and correctness of data product.
<b>Deployment</b>	- Software released to public environment, with associated database changes.	- Data product released to public environment.
<b>Operate / Maintain</b>	- Keep system infrastructure and databases in working order.	- Apply revisions to data and/or metadata as needed.

DADS support for a given data product may require multiple and overlapping passes through the system life cycle. To demonstrate this concept, Figure C.4.4-1 traces a hypothetical data product to be tabulated and disseminated through the DADS system life cycle. This example assumes the following:

- The product can be tabulated with no modification to the DADS tabulation application
- Product dissemination requires an enhancement to the DADS dissemination application

As the Figure C.4.4-1 shows, at least three passes through the system life cycle are required: one each to (1) create the tabulated data, (2) enhance the dissemination application, and (3) create and disseminate data products based on the tabulated data. In this example, time constraints require that early testing outputs from tabulation operations be provided to the dissemination application development to support unit testing during the construction phase. (See Area A in Figure C.4.4-1.) Later, production outputs from tabulation operations, in concert with completion of the

dissemination application functional enhancement, feed downstream dissemination operations. (See Areas B and C in Figure C.4.4-1.)



**Figure C.4.4-1 Example DADS System Life Cycle**

Figure C.4.4-1 Note: UAT – User Acceptance Test; O/M – Operations and Maintenance.

The Contractor **shall** submit with the response to this solicitation the Contractor's *System Life Cycle Management Approach* describing at a high-level the Contractor's system life cycle methodology, including anticipated modifications to conform to and support the DADS System Life Cycle and DADS Business Operations.

During Phase 1, Transition Planning, the Contractor **shall** observe, interface with, and work with the incumbent workforce, the Government, and other key DADS personnel to gain in-depth knowledge of how the DADS system life cycle is applied to organize and accomplish DADS work.

No later than the end of Phase 1, Transition Planning, the Contractor **shall** deliver the Contractor's *System Life Cycle Management Plan*. The Contractor's *System Life Cycle Management Plan* **shall** be derived from the Contractor's *System Life Cycle Management Approach* and tailored to reflect the in-depth knowledge of the current DADS system life cycle. The Contractor's *System Life Cycle Management Plan* **shall** include the activities, roles, and responsibilities, work products, resources, events, reviews, and reports of the Contractor's system life cycle management processes to be used in Phase 2, Transition and Phase 3, Production.

No later than nine (9) months after the end of Phase 2, Transition, the Contractor shall deliver a *Business Operations Process Improvement Plan*. The *Business Operations Process Improvement Plan* **shall** include, at a minimum, documentation and assessment of existing processes and recommendations for improvement.

The Contractor **shall** use the system life cycle processes described in the Contractor's *System Life Cycle Management Plan* during the period of performance and evolve the processes, as necessary, to adapt to the Government's business needs.

The Government and the Contractor **shall** conduct a review of the Contractor's *System Life Cycle Management Plan* as part of the annual proposal process to ensure the continued effectiveness of the Contractor's system life cycle management processes.

The Contractor **shall** assess to Software Engineering Institute (SEI) Capability Maturity Model Integration (CMMI) Level 3 and maintain this level through the life of the contract.

#### **C.4.5 System Engineering and Architecture**

The DADS Program requires system engineering and architecture services to support program goals. The DADS Program, in cooperation with several Census Bureau organizations, is required to support Census Bureau standards for security, interoperability, and Information Technology (IT) services and other program and system requirements.

During Phase 1-Transition Planning, the Contractor **shall** observe, interface with, and work with the incumbent workforce, the Government, and other key DADS personnel to gain in-depth knowledge of the current DADS Program system architecture, the tools and models used to document that architecture, and the processes used to keep the architecture synchronized with the implementation and with evolving Census Bureau standards.

No later than the end of Phase 2 - Transition, the Contractor **shall** deliver a *DADS Architecture Model* that will define the architecture frameworks, tools, models, and processes that will be used to continue development and synchronization of the DADS architecture. At a minimum, the *DADS Architecture Model* **shall** include the following information: architecture overview, operational concept, connectivity and information exchanges, system interfaces, business and system data descriptions, business and systems event traces, system functionality descriptions, and standards profile. The *DADS Architecture Model* **shall** include interfaces to the Census Bureau's 2010 Decennial Census Logical and Physical Architecture. In addition, the architecture model **shall** include the information needed to populate the reference models of the Federal Enterprise Architecture Framework. The processes **shall** include mechanisms for keeping the DADS architecture synchronized with Census Bureau standards and for annual review of the architecture by the Government.

On a date specified by the Government during Phase 3—Production, the Contractor **shall** develop, deliver, and maintain documentation on the DADS architecture, using the frameworks, tools and models specified during Phase 2. The Contractor **shall** develop the architecture to comply with all Federal, Department of Commerce, and Census Bureau IT architecture requirements and IT standards related to the security and accessibility of and interface with Government systems and data. See Section J-8, *IT Architecture and Standards*. The Contractor **shall** maintain accuracy, completeness, and consistency of the DADS architecture throughout the period of performance.

On a date specified by the Government after contract award, the Contractor **shall** prepare systems engineering documentation including requirement specifications (see Section C.4.3, *DADS Requirements Management*), system and detailed design specifications, test plans and reports, and deployment plans. The Contractor **shall** prepare *Configuration and Change Management Plans, Performance and Capacity Plans*. The Contractor **shall**

provide systems engineering services during all phases of the DADS system life cycle. The Contractor **shall** provide security analysis, implementation and testing, configuration and change management, performance and capacity management, and continuity of operations management according to the systems engineering plans.

#### **C.4.5.1 Infrastructure Maintenance**

The Government's *Change Management Strategy* (see Section J-10, *Change Management Strategy*) provides a vision of an overarching framework that describes the relationship among the *Configuration Management Approach* and other change documents and processes (see Section C.5.14, *Change Management*).

The Contractor **shall** submit with the response to this solicitation the Contractor's *Configuration Management Approach*. The Contractor's *Configuration Management Approach* **shall** describe the Contractor's configuration management process, including roles and responsibilities, reviews, and reports. The Contractor's *Configuration Management Approach* **shall** integrate with the Government's *Change Management Strategy* (see Section J-10, *Change Management Strategy*) and describe the application of the Contractor's configuration management system to the DADS Program.

During Phase 1-Transition Planning, the Contractor **shall** observe, interface with, and work with the incumbent workforce, the Government, and other key DADS personnel to gain in-depth knowledge of the DADS Program change and configuration management approaches.

No later than the end of Phase 2-Transition, the Contractor **shall** deliver the Contractor's *Configuration Management Plan*. The Contractor's *Configuration Management Plan* **shall** reflect the Contractor's in-depth knowledge of the DADS Program configuration management approach. The Contractor's *Configuration Management Plan* **shall** include the activities, roles and responsibilities, work products, resources, events, schedules, reviews, and reports of the Contractor's configuration management system to be used during Phase 3-Production.

The Contractor **shall** perform infrastructure maintenance activities, including hardware and software procurement, installation, systems administration, system upgrades, preventive and corrective maintenance, and configuration management.

The Contractor **shall** procure all hardware and software, including licensing and maintenance associated with DADS, with the exception of hardware and software purchased and maintained by the Census Bureau.

The Contractor **shall** install and administer all hardware, including servers, switches, and routers, that support the DADS internal network. The Contractor is not responsible for local area network (LAN) and wide area network (WAN) connectivity, firewalls, and other security items outside the DADS internal network, but **shall** work cooperatively with the Census Bureau when problems arise. The Government will provide user workstation support and manage the LAN and connectivity outside the DADS internal network.

The Contractor **shall** install and administer all software, including middleware, database engines (e.g., Oracle®), operating systems (e.g., Unix®), development tools (e.g., Java®), and configuration management tools (e.g., Rational Clear Case/Clear Quest®). The Contractor **shall** plan and execute any needed upgrades to the software and maintain licensing during the period of performance.

The Contractor **shall** maintain the hardware and software to keep various DADS systems available for use by developers and system end users. The Contractor **shall** address scheduling, resource requirements, equipment layout, and testing.

The Contractor **shall** perform the following types of activities as appropriate:

- Corrective and preventive maintenance on hardware
- Reporting on planned and unplanned system events and activities
- Monitoring of system availability, load, and system capacity
- Identification of requirements for hardware and software upgrades
- Scheduling and execution of regular system administration activities, including system reboot, backup, recovery, archiving, and restoration
- Installation of operating system, database, commercial-off-the-shelf (COTS) products, application development upgrades, and new releases
- Hardware and software configuration management

#### C.4.5.2 Technology Refresh

The Contractor **shall** submit with the response to this solicitation a *Technology Refresh Approach*. The *Technology Refresh Approach* **shall** describe the Contractor's strategy for planning for evolving technology and managing the implementation of new technology.

During Phase 1-Transition Planning, the Contractor **shall** observe, interface with, and work with the incumbent workforce, the Government, and other key DADS personnel to gain in-depth knowledge of the state of technology of DADS systems.

No later than the end of Phase 2-Transition, the Contractor **shall** deliver the Contractor's *Technology Refresh Plan*. The Contractor's *Technology Refresh Plan* **shall** propose alternatives for technology refresh, provide recommendations, and describe benefits, risks, and trade-offs. The Contractor's *Technology Refresh Plan* **shall** address technology refreshment over the life of the DADS II contract.

#### C.4.6 Security

The scope of security for DADS is to secure all contract deliverables (e.g., systems, data, operating environments, processes) to ensure proper handling of Title 13 information and to provide access to, and operation of, Government data and systems as required by the following mandates:

- Federal Information Processing Standard (FIPS) 140-2, <http://www.itl.nist.gov/fipspubs>
- National Institute of Standards and Technology (NIST) Special Publications 800-18, 800-30, 800-34, 800-37, and 800-63
- Department of Commerce IT Security Program Policy  
<http://www.osc.doc.gov/cio/oipr/itsec/DOC-IT-Security-Program-Policy.htm>
- Census Bureau's IT Security Program Policies, (See Section J-7, Security Plan)

- Federal Information Security Management Act (FISMA), <http://csrc.nist.gov/sec-cert>
- Homeland Security Presidential Directive/Hspd-12

These security directives may change over the period of performance as a result of the evolution of laws and policies stimulated by previous events and future events. The potential for new laws and policies or changes to laws and policies, although outside the control of the Census Bureau, may affect the scope and/or requirements of the DADS Program. Therefore, in the event that such a modification affects the DADS Program scope or requirements, the Contractor **shall** address these situations in the most cost-effective and efficient manner possible.

The requirements defined as follows **shall** not eliminate any additional requirements specified in the previous mandates.

#### **C.4.6.1 Certification and Accreditation of Information Technology Systems**

The Contractor **shall** submit with the response to this solicitation a schedule for the submission of Security Deliverables. After contract award, the Government and the Contractor **shall** meet to negotiate the final schedule of Security Deliverables.

The Contractor **shall** obtain Certification and Accreditation (C&A) of the Contractor's technical approach prior to any processing of census data. Certification must be obtained from the Chief of the Information Technology Security Office and the Department of Commerce Office of Security at the Census Bureau. Accreditation must be obtained from the Associate Director for Decennial Census. The C&A process is in keeping with NIST Special Publication 800-37. This process is documented in Section 3.4 of the Department of Commerce IT Security Program Policy located at <http://www.osec.doc.gov/cio/oipr/itsec/DOC-IT-Security-Program-Policy.htm>. The Government will guide the C&A process.

The Contractor **shall** repeat a security C&A of DADS systems every three (3) years. The Contractor **shall** be required to complete a C&A process for the development, testing, and production systems as outlined in Section J-7, *Security Plan*.

The Contractor **shall** work with the Government to determine the inspection schedule based on DADS schedule requirements and the availability of Government staff.

The Contractor **shall** complete a NIST Special Publication 800-26 Self-Assessment Questionnaire on an annual basis. The Contractor **shall** deliver, maintain, and adhere to all documentation required to fulfill security requirements, NIST 800-37, and the C&A processes for DADS systems.

On a date specified by the Government after contract award, the Contractor **shall** provide *Security Plans* that address all processes the Contractor will follow to ensure that DADS meets the security requirements necessary to receive accreditation and complies with NIST Special Publication 800-18.

On a date specified by the Government after contract award, the Contractor **shall** provide a *Continuity of Operations Plan* that addresses contingency planning and complies with NIST Special Publication 800-34. The Contractor **shall** provide documentation that



supports every Test ID within the *Census Bureau's Security Test and Evaluation document*. (See Section J-14, *Census Bureau Security Test and Evaluation Document*.)

In the event of any major changes to DADS systems, including changes in scope, the Contractor **shall** submit to re-certification and re-accreditation by the Census Bureau's IT Security Office.

#### **C.4.6.2 Federal Information Processing Standards Requirements**

The Contractor **shall** conform to NIST publications and Federal Information Processing Standards (FIPS) Special Publications pertaining to security.

The Contractor **shall** document how the DADS technical approach adheres to FIPS requirements. FIPS requirements for computer security appear at <http://www.itl.nist.gov/fipspubs>.

#### **C.4.6.3 Personnel Security**

Title 13, U.S.C., Section 23(c) permits the Government to use non-Government personnel to perform the work authorized under this title but only if they are sworn to observe the limitations imposed by Section 9 of this title.

All DADS II Contractor personnel **shall** take the Census Bureau Oath of Nondisclosure (BC-1759, Special Sworn Status) to receive Special Sworn Status (SSS) before they are given access to Title 13 information. A designated Census Bureau employee or a Notary Public will administer the oath if the Census Bureau designee is unavailable.

All Contractor personnel **shall** renew their SSS with the Census Bureau on an annual basis. All Contractor personnel **shall** be subject to penalties for unlawful disclosure of Title 13 information.

All Contractor personnel with access to Title 13 information **shall** complete an annual Title 13 Security Awareness Course provided by the Census Bureau's Policy Office. All Contractor personnel with access to IT resources **shall** complete an annual IT Security Awareness Course provided by the Census Bureau's IT Security Office.

The Contractor **shall** prohibit its personnel and sub-contractor personnel from working or visiting DADS-related facilities until the Government conducts, and personnel pass, a favorable pre-employment background investigation. Individuals who passed a recent background investigation by another Government agency, which meets Department of Commerce requirements and which can be verified by the department's Office of Security, do not require a pre-employment background investigation. The date and type of investigation and a verification contact must be provided to the Department of Commerce Office of Security for verification and confirmation.

All Contractor and sub-contractor personnel, including project supervisors and managers, **shall** provide all required information and pass the Government's suitability clearance prior to performing work on the DADS II contract.

The Contractor **shall** submit paperwork for new DADS employees at least six (6) calendar weeks before they commence work under this contract. Necessary forms will be

furnished by the Government and will be made available to the Contractor as needed during the period of performance.

#### **C.4.6.4 Foreign Nationals**

Contractor personnel who are not U.S. citizens are subject to the same security processing as any other Contractor. Non-U.S. citizens however are required to reside in the United States for at least two (2) years prior to the submission of clearance forms.

The Contractor **shall** not employ or use any foreign nationals who do not comply with Commerce Acquisition Regulation (CAR) 1352.237-71 and who have not legally resided in the United States for the past two (2) years.

The Contractor **shall** submit clearance forms only for foreign nationals who have resided in the United States for two (2) years preceding submittal of the forms. The Government reserves the right to change policies related to foreign nationals, and the Contractor **shall** adhere to such changes.

Foreign nationals who have resided in the United States for two (2) years preceding employment **shall** be granted access to Title 13 data only after providing all necessary forms including Immigration and Naturalization Service documentation and obtaining a security clearance. However, these foreign nationals **shall** not be allowed in any Government-designated restricted areas.

The Contractor **shall** prohibit foreign nationals from: accessing Government-designated restricted areas, assuming administrative or policy-forming responsibilities for any DADS-related work, assuming security-related positions (e.g., security management or oversight, guards, or security guard or security officer positions in any DADS-related facility); accessing classified (national security) information, and accessing restricted areas (e.g., computer rooms, telecommunication centers) in any DADS-related facility.

#### **C.4.6.5 Commerce Acquisition Regulation Compliance**

The following IT security clauses are required for all contracts for services involving IT in which physical and/or electronic access to Department of Commerce information is needed. (See the November 17, 2003 memorandum from the Deputy Director for Acquisition, Christine A. Makris, Subject: Information Technology Security Clauses.)

The Contractor **shall** fully comply with CAR 1352.237-71 (see Section I, *Security Processing Requirements For Contractor/Subcontractor Personnel Working On A Department Of Commerce Site*, for a copy of this regulation).

This contract has been classified as “medium risk” in accordance with Commerce Acquisition Manual (CAM) 1337.70. Under the DADS II contract, the Government anticipates differing levels of performance risk based upon the specific functions performed under the contract. Accordingly, the Department of Commerce has granted a deviation to CAM 1337.70 to allow the Census Bureau to require Contractor personnel security clearance checks based upon the function performed by these personnel under the DADS II contract. The Contractor shall fully comply with CAR 1352.239-74 and screen all Contractor personnel in accordance with this regulation based upon their risk-level category as outlined in Table C.4.6.5-1 (see Section I, *Security Processing*

*Requirements For Contractors/Subcontractors Personnel For Accessing DOC Information Technology Systems*, for a copy of CAR 1352.239-74):

**Table C.4.6.5-1 Risk-Level Categories**

<b>IT Risk Level</b>	<b>Examples of IT Functions</b>
High	Network/System Administrator System Developer IT security positions
Medium	User of a system that contains Title 13 data User of a system that has “write” capabilities to a DADS production system
Low	User who has read-only access to non Title 13 data User whose capabilities are limited to office automation applications (e.g., word processing, e-mail)

The Contractor shall fully comply with CAR 1352.239-74 (see Section I, *Security Processing Requirements For Contractors/Subcontractor Personnel For Accessing DOC Information Technology Systems*, for a copy of CAR 1352.239-74). Failure of the Contractor to comply with the requirements of this section may result in termination of this contract or removal of some Contractor personnel from DOC facilities. Compliance with these requirements **shall** not be construed by the Contractor as having the ability to provide its personnel with clearance to access classified information.

#### **C.4.6.6 Information Technology Security**

The Contractor **shall** monitor and confirm that all delivered systems/equipment/products that may have contained Title 13 data during their operational live are degaussed or otherwise sanitized so that Title 13 data are unrecoverable in whole or in part. The process used **shall** be in compliance with applicable Government regulations and guidance. Encrypted Title 13 data on any device or encrypted Title 13 data on any removable media **shall** be handled and tracked as if they are unencrypted Title 13 data.

The Contractor **shall** use all means available to provide security for Government-owned source code and data.

Government-owned source code and data, which becomes available to the Contractor under the terms in this Performance Work Statement, **shall** be restricted to the uses necessary to ensure proper functioning DADS systems, and **shall** not be disclosed or used for any other purpose without the prior written permission of the Contracting Officer. These restrictions **shall** not apply to material currently published and presently in the public domain or material obtained by the Contractor about DADS systems independent of the Government.

The Contractor **shall** be responsible for making regular backups, on a schedule approved by the Government, of all computer data that support DADS applications, systems, and data.

The Contractor **shall** have the responsibility to implement appropriate IT (e.g., network access, database access). The Contractor **shall** establish and implement backup and recovery procedures for DADS. The Contractor **shall** administer an effective backup and recovery program, including offsite storage and retrieval from storage facilities, consistent with Census Bureau operating procedures, regulations and the requirements of this Performance Work Statement.

The Contractor **shall** periodically test the established backup and recovery procedures and backup system components in accordance with backup schedules. The Contractor **shall** maintain the backup library in accordance with retention cycles and, if needed, execute recovery procedures.

On a date specified by the Government after contract award, the Contractor **shall** develop and implement disaster recovery plans and test the plans for the DADS Program.

The Contractor **shall** establish and implement network administration procedures to provide access controls and user ID and password integrity.

#### **C.4.6.7 Security Performance Requirements**

The Contractor **shall** propose a process to secure DADS systems and data in accordance with the requirements of this Performance Work Statement. This process **shall** include the specific metrics to be gathered, with recommended threshold limits for alarm and corrective actions, to support the maintenance of full security for DADS systems and data.

### **C.5 PROGRAM MANAGEMENT**

Program Management provides the Contractor and the Government with the processes and tools necessary to effectively manage the work performed.

The Contractor **shall** manage all tasks in a manner that enables DADS goals and objectives to be met within the schedule, cost, scope, and technical baselines. The Contractor **shall** provide management, administration, and documentation of DADS, including providing staff, equipment, processes, procedures, training, and management necessary to initiate, execute, control, status, secure, and close out the functions required by this Performance Work Statement.

The Contractor **shall** submit with the response to this solicitation an initial *Program Management Plan (PMP)* that describes the Contractor's management and control approach. As necessary (at least annually), the Contractor **shall** develop, maintain, report on, and comply with a *PMP* to successfully manage the DADS Program. The Contractor's *PMP* **shall** include the following elements:

- Initial Work Breakdown Structure (WBS) and Initial Master Project Schedule (see C.5.4, *Work Breakdown Structure and Master Project Schedule*)
- Contractor's project organization structure, roles and responsibilities, and internal reporting relationships
- Contractor's project management processes, procedures, and policies
- Interfaces between the Contractor's project management team and the Government's team
- *Responsibility Assignment Matrix* that describes the relationship of the project organization to the Contract Work Breakdown Structure (CWBS)
- Schedule of Earned Value Milestones

- Earned Value Measurement Baseline
- Cost and schedule reporting mechanisms

The remainder of this section addresses key areas within Program Management.

#### **C.5.1 Annual Proposal Process**

On an annual basis, the DADS Program plans to provide the Contractor with a Request for Proposal, including a Performance Work Statement. The Annual Performance Work Statement will definitively state the requirements for the upcoming option period.

The Contractor **shall** submit on an annual basis to the Government a cost and technical proposal based on the Performance Work Statement. The annual proposal process **shall** include the review and, if necessary, update and submission of the following documents:

- Requirements Assessment Report
- Requirements Traceability Matrix (RTM)
- System Requirements Specification (SRS)
- System Life Cycle Management Plan
- Program Management Plan (PMP)
- Work Breakdown Structure (WBS)
- List of DADS documentation
- Quality Management Plan
- Risk Management Plan
- Change Management Plan
- Configuration Management Plan
- Performance Measurement Plan
- DADS Architecture Model
- Business Operations Process Improvement Plan

These documents **shall** be maintained on an on-going basis and **shall** integrate and complement the Government's version of the document where applicable.

#### **C.5.2 Communication with the Government**

The Contractor **shall** establish and maintain effective communication with the Government. Communications between DADS and the Contractor **shall** utilize both informal and formal forms to maintain timeliness and efficiency of actions. The Contractor **shall** structure the DADS effort in a manner that ensures that the Contractor's goals and objectives are synchronized with those of the Government and reflect the attributes of a partnership through an open, customer-oriented effort.

With the Government's approval, the Contractor may interact with a wide range of DADS stakeholders, including Census Bureau executives, management, and subject matter and technical staff and organizations outside the Census Bureau, (e.g., 2010 Census oversight groups).

The Contractor **shall**:

- Deliver an updated list of all DADS documentation on an annual basis.

- Work collaboratively with Government subject matter, technical, statistical, geographic, systems, and security staff to ensure that all deliverables and work products meet Government requirements.
- Provide an Issues and Problems Report that describes the impact to cost, schedule, quality, and technical baselines and recommends solutions. The timing and content of this report will be jointly agreed upon after contract award.
- Provide a Variance Analysis Report that recommends remedies to address cost variances, schedule variances, and quality issues concerning deliverables.
- As necessary, submit a Program Change Request in accordance with DADS Program Change Management Processes and Requirements (see Section C.5.14, *Change Management*).
- As directed by the Contracting Officer or the Contracting Officer's Technical Representative, coordinate efforts with the Government and other Census Contractors to ensure the success of DADS.

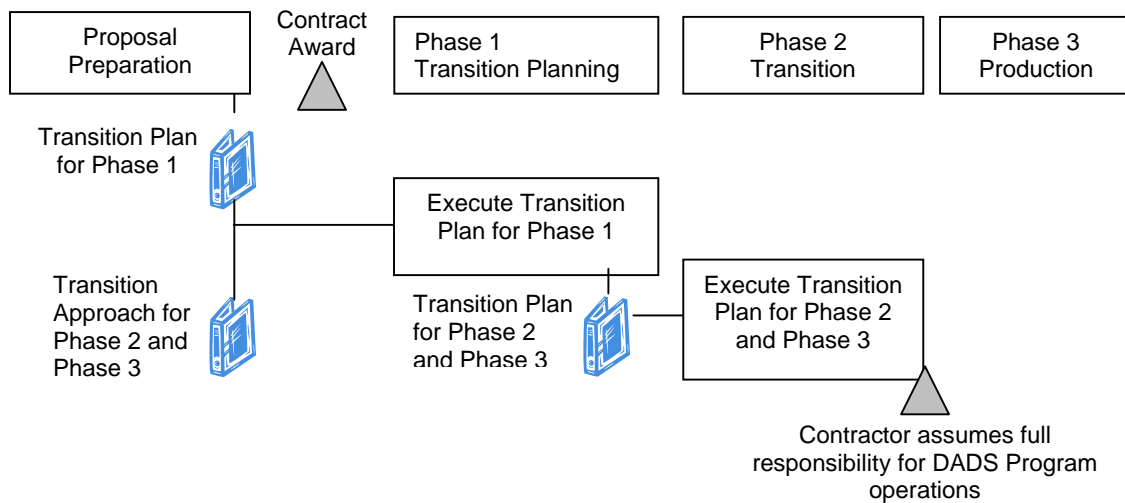
#### **C.5.2.1 Program Management Reviews and Other Meetings**

The purpose of the *Program Management Review* (PMR) is to communicate status, risks, schedules, costs, earned value, and issues to a broad-based audience, including DADS Program management, other Census Bureau managers, and oversight organizations. In addition, to facilitate collaboration, other meetings driven by either schedule or events and initiated by the Government or requested by the Contractor may occur. Such meetings include Change Control Board, Coordination, and Status meetings.

On a date specified by the Government after contract award, the Contractor **shall** present the first PMR. PMRs **shall** be conducted by the Contractor and held on a monthly basis for the duration of the contract. In accordance with the Contractor's program management discipline, the Contractor **shall** work cooperatively with the Government to establish the format of the meetings.

#### **C.5.3 Contract Transition**

The Government requires a transition period during which the responsibilities for maintaining, enhancing, and operating the DADS System transfers from the incumbent to the Contractor. The Government, incumbent, and Contractor must work collaboratively to ensure a successful transition with minimal disruption to Government operations. A three-phased approach to transition is depicted in figure C.5.3-1.



**Figure C.5.3-1 Contract Transition**

The Contractor **shall** perform the transition activities required to assume full responsibility for all functions for the DADS Program from the incumbent with minimal disruption to Government operations. The Government, incumbent, and Contractor **shall** work collaboratively to ensure a successful transition. Descriptions of pre-award and contract phases, identified in Section C.3, *Contract Scope*, follow.

#### Pre-Award

The Contractor **shall** submit with the response to this solicitation a *Transition Plan for Phase 1* that describes the activities the Contractor proposes to undertake during the first ninety (90) days of the contract. The *Transition Plan for Phase 1* **shall** include a schedule of events and milestones. The Contractor **shall** submit with the response to this solicitation a *Transition Approach for Phase 2 and Phase 3* that describes the Contractor's proposed technical approach to conduct Business Operations and maintain and enhance DADS systems. The Contractor **shall** submit with the response to this solicitation potential risks with risk mitigation strategies associated with Phase 1.

#### Phase 1 – Transition Planning (October 1, 2006 to December 31, 2006)

The Contractor **shall** meet with the incumbent workforce, the Government, and other key DADS personnel on a date specified by the Government to launch transition planning. During Phase 1, Transition Planning, the Contractor **shall** observe, interface with, and work with the incumbent workforce, the Government, and other key DADS personnel to gain in-depth knowledge of and familiarity with DADS systems, including the following products and artifacts: data tabulation and dissemination artifacts produced by the applications, physical and logical architectures, functional and non-functional requirements, COTS hardware and software, custom software and scripts, configuration and administration requirements, operating parameters, and maintenance requirements.

No later than sixty (60) days after contract award, the Contractor **shall** deliver the detailed *Transition Plan for Phase 2 and Phase 3*. The *Transition Plan for Phase 2 and Phase 3* **shall**, at

a minimum, include the transition activities, work products, resources, and schedules for Phase 2 and Phase 3 and a detailed cost proposal for Phase 2.

The *Transition Plan for Phase 2 and Phase 3* **shall** include the Contractor's *Staffing Plan* that identifies the Contractor's proposed personnel and the Contractor's source of personnel (e.g. current resources, hires from the incumbent, new hires, subcontractor resources). The Contractor's *Staffing Plan* **shall** be derived from the Contractor's *Staffing Approach* (see Section C.5.9 Staffing) and include descriptions of policies and processes for recruiting, hiring, training, retaining, and assigning personnel over the life of the contract. The *Transition Plan for Phase 2 and Phase 3* **shall** describe how and identify when responsibility and accountability for Business Operations transfers from the incumbent to the Contractor. The Contractor **shall** address in its *Transition Plan for Phase 2 and Phase 3* the Government and Contractor's hardware and software inventory transfer. The Contractor **shall** provide, as a component of the *Transition Plan for Phase 2 and Phase 3*, a schedule of transition events and milestones and indicate incremental assumption of responsibilities.

The *Transition Plan for Phase 2 and Phase 3* **shall** identify risks with risk mitigation strategies associated with Phase 2 and Phase 3.

#### Phase 2 – Transition (January 1, 2007 to June 30, 2007)

Upon Government review and approval of the *Transition Plan for Phase 2 and Phase 3*, the Contractor **shall** implement, execute, manage, and control the *Transition Plan for Phase 2 and Phase 3*. The intent of Phase 2 is to efficiently, effectively, and incrementally transfer responsibility from the incumbent to the Contractor. The Contractor **shall** provide properly trained, qualified, and/or certified personnel prior to assuming responsibility for each function.

The Contractor **shall** assume full responsibility for all Government-furnished items as identified in the joint inventory conducted during Phase 2 - Transition. The Contractor **shall** assume full responsibility for all functions for the DADS Program no later than the end of Phase 2.

#### Phase 3 – Production (July 1, 2007 to June 30, 2016)

The Contractor **shall** assume full responsibility for all functions and **shall** perform the functions for the DADS Program. The Contractor **shall** be responsible for all activities described in this Performance Work Statement.

### **C.5.4 Work Breakdown Structure and Master Project Schedule**

The Government requires the use of a product-oriented WBS as the core of program control and scope management. The WBS comprises two major parts: (1) the *Program Work Breakdown Structure* (PWBS) and (2) the *Contractor Work Breakdown Structure* (CWBS). The PWBS will be created to support the CWBS after contract award and after the Contractor and the Government reach agreement. On an annual basis the Government and the Contractor **shall** review and may revise the CWBS or PWBS.

The Contractor **shall** provide a CWBS that represents the scope of work to be performed by the Contractor in the delivery of the Contractor's technical approach. The Contractor **shall** prepare the CWBS at a level that demonstrates that the Contractor has a clear understanding of the work to be performed. The CWBS **shall** be prepared at a minimum, to the third level. On a date specified by the Government after contract award, the Contractor **shall** meet with the Government to review and, if necessary, restructure the CWBS and create the PWBS. The Government and



the Contractor **shall** conduct a review of the PWBS and CWBS as part of the annual proposal process to ensure the continued effectiveness of the WBS. The Contractor **shall** develop, deliver, maintain, and adhere to a detailed product-oriented CWBS for its management of the DADS II contract.

The CWBS **shall** be further integrated into a *Master Project Schedule*, which the Government and the Contractor will use as a project management tool that ties technical, cost, scope, and schedule baselines into a performance-based, Earned Value Management System (EVMS) (See Section C.5.5, *Earned Value*). The Contractor **shall** develop, deliver, and maintain an integrated *Master Project Schedule* that ties to the CWBS. The *Master Project Schedule* **shall** include a unique CWBS identifier for each schedule entry or milestone.

The Contractor **shall** submit with the response to this solicitation the Contractor's *Master Project Schedule*. The Master Project Schedule will contain detailed planning for fiscal year 2007 and high-level planning for the remainder of the contract period.

The Contractor **shall** provide to the Government schedule updates based on the CWBS in a file format that is compatible with Microsoft Project®. The details regarding the frequency of schedule updates and file content **shall** be negotiated upon contract award.

The Contractor **shall** develop, deliver, maintain, and adhere to a dictionary for each CWBS element. The Contractor **shall** provide the Government with updates to the dictionaries as changes occur within the CWBS.

The Contractor **shall** establish and maintain an Earned Value Measurement Baseline against which program performance can be measured. The Contractor **shall** minimize the use of level-of-effort cost accounts to the greatest extent practical in the establishment of the Earned Value Measurement Baseline.

The Contractor **shall** also deliver an *Organizational Breakdown Structure* that integrates with the proposed CWBS. The Contractor **shall** also deliver a Responsibility Assignment Matrix, which integrates the CWBS and the Organizational Breakdown Structure.

### **C.5.5 Earned Value**

Earned Value (EV) is a program management technique that integrates technical performance requirements and resource planning with schedules, while taking risk into consideration. The major objectives of applying EV to a contract are to encourage the Contractor to use effective internal technical, cost, and schedule management control systems and to provide the Government with accurate and timely data produced by these systems for better management insight. These data, in turn are used for determining product-oriented contract status, and projecting future performance based on trends to date. In addition, EV enables better and more effective management decision making to minimize adverse impacts to the project. See Section J-6, *Earned Value Management Plan*.

The Contractor **shall** employ EV methodology on the DADS II contract following ANSI/EIA Standard 748-98. The Contractor **shall** integrate EV metrics from all subcontractors into the Contractor's EVMS.

After contract award, the Contractor **shall** generate a monthly and cumulative *Contract Performance Report (CPR)* for the CWBS. The level of reporting **shall** be jointly determined with the Government after contract award based on the Contractor's CWBS. The Contractor **shall** establish a reporting level of the CWBS that provides Government visibility into the Contractor's detailed milestones and the status of deliverables and products for the DADS II contract. The Government will use this information for performance measurement and tracking of status.

The Contractor **shall** deliver *CPR* formats 1, 2, 3, 4, and 5 with one (1) cover sheet. The Contractor **shall** deliver the *CPR* by the 15<sup>th</sup> of each month for the current reporting month (i.e. previous month) and cumulative period. The Contractor's *CPR* **shall** also reflect all subcontractors' EV metrics for both the current and cumulative periods. The Contractor **shall** show current and cumulative variances, report on the reasons for these variances, and describe corrective actions as required. The current and cumulative variance thresholds will be negotiated after contract award. The Contractor **shall** provide the Government with a wInsight® (the Census Bureau's EV software tool) file each month, to be delivered with the *CPR*. The Contractor **shall** use the guidelines in the Defense Acquisition Guidebook, including the appendices, to establish cost reporting requirements for subcontractors on the DADS II contract. The Contractor **shall** also deliver a *Baseline Maintenance Log* detailing all changes or modifications to the EV baseline during the reporting period.

The Contractor **shall** deliver an *EVMS Plan* that describes the Contractor's EV methodology, a description of the Contractor's EVM system, and the CWBS.

#### **C.5.6 Financial Reporting**

Semiannually, by April 15<sup>th</sup> and October 15<sup>th</sup> of each year, the Contractor **shall** provide DADS Financial Reports to support the Government's budget process. The Contractor **shall** provide separate financial reports on paper and electronically, via email, in a format determined jointly with the Government after contract award. The Contractor's financial reports **shall** include the financial information from the previous six (6) months and cumulative financial information. The Government will provide the detailed requirements for these reports after contract award.

On a date specified by the Government after contract award, the Contractor **shall** meet with the Government to review the Government's financial reporting requirements. These requirements include reporting financial information by maintenance and operations activities, enhancement activities, data product, and Contract Line Item Number. The Contractor **shall** deliver financial reports that enable the Government to fulfill the Government's financial reporting requirements.

The Contractor **shall** generate a *Contract Funds Status Report*, DD Form 1586, to be delivered quarterly (January 15, April 15, July 15, and October 15).

#### **C.5.7 Monthly Status Reports**

The Contractor **shall** submit a written Monthly Status Report by the 15<sup>th</sup> day of each month for the previous month's activities. The report **shall** at a minimum contain the following information:

1. The Contract Number and reporting period
2. Period of Performance
3. A summary of the technical work specifying the following:

- a. A narrative review of work accomplishments and/or significant events for the month
  - b. Problems, root cause analysis (if necessary), and solutions (including impacts on quality, schedule, and cost)
  - c. Percentage of work completed toward interim or final deliverables and estimates of time to complete deliverables
  - d. Major activities planned for the next month
4. Monthly and cumulative contract dollars spent to date
  5. Funds remaining
  6. Program issues and high-level risks including, the areas of program management, facilities, equipment, staffing, and funding
  7. Status and progress for 508 compliance
  8. Maintenance issues, maintenance risks, and mitigation activities and/or plans
  9. Security issues, security risks, mitigation activities, and/or plans

After contract award, the Contractor and the Government will jointly determine the format of the report including dashboard presentations of key performance metrics and the full contents of the report. The report **shall** include measurements and metrics for regular reporting as well as performance baselines/standards for these measurements.

#### **C.5.8 Key Personnel**

The qualifications, availability, and commitment of Key Personnel are important to the Government. The Contractor **shall** submit with the response to this solicitation information on Key Personnel with experience relevance to the DADS Program. A strong team of available personnel with combined expertise in all aspects of technical requirements, business management, and program management is required. Proposal instructions appear in Section L.16.2.8, *Key Personnel*.

The Contractor's Key Personnel **shall** include at a minimum the following positions:

- Project (or Program) Manager
- Deputy PM(s)
- IT Security Manager
- Quality Manager
- System Architect
- System Development Manager
- Requirements Manager
- Financial Manager
- Business Operations Specialist

The Contractor may propose other personnel, from itself, teaming partner(s), or its subcontractor(s), as Key Personnel. The final designation of Key Personnel will be negotiated after contract award. The Contractor's Key Personnel for the DADS II contract are subject to the Key Personnel provisions of Section H.5.

#### **C.5.9 Staffing**

The qualifications of the Contractor's initial staff for Phase 1 – Transition Planning are important to the Government. The Government requires the Contractor's initial staff to possess the skills, experience, and education to effectively and collaboratively work with the Government and

incumbent workforce to gain in-depth knowledge of and familiarity with DADS systems to ensure a successful transition with minimal disruption to Government operations. The Contractor **shall** identify and submit with the response to this solicitation resumes for the initial staff for Phase 1 – Transition Planning (if different from Key Personnel). Submitted resumes **shall** not exceed three (3) pages for each initial staff member and **shall** describe skills, experience, and education relevant to Phase 1 – Transition Planning activities. The resumes **shall** contain the following information on each candidate:

- Years of relevant experience and skill sets in relevant fields
- Recognition in his or her field
- Relevant published papers including a full bibliographical reference
- Degrees and certifications relevant to the proposed work

The qualifications of the Contractor’s potential staff for Phase 2 – Transition and Phase 3– Production are important to the Government. The Government requires the Contractor’s staff to possess the skills, experience, and education to effectively perform the work of Phase 2 – Transition and Phase 3–Production. The Contractor **shall** submit with the response to this solicitation resumes for potential staff members who can be quickly made available for Phase 2 – Transition and Phase 3–Production. The Contractor **shall** submit two (2) resumes for, at a minimum, the following skill areas:

- Systems Analysis
- Data Modeling
- Database Administration
- Systems Administration
- Geographic Information Systems
- User Interface Design

The Contractor may propose other skill areas. Submitted resumes **shall** not exceed three (3) pages for each potential staff member and **shall** describe skills, experience, and education relevant to Phase 2 – Transition and Phase 3–Production activities. The resumes **shall** contain the following information on each candidate:

- Years of relevant experience and skill sets in relevant fields
- Recognition in his or her field
- Relevant published papers including full bibliographical reference
- Degrees and certifications relevant to the proposed work
- Capability to apply innovations in technology

The Contractor’s ability to draw upon its broader human capital resources to support the DADS Program is important to the Government. The Contractor **shall** submit with the response to this solicitation the Contractor’s *Staffing Approach* that describes how the Contractor’s policies and processes for recruiting, hiring, training, retaining and assigning staff, and managing human resource levels (i.e., ramp-ups and ramp-downs) will fulfill project staffing requirements, while ensuring that staff skills are maintained. The Contractor’s *Staffing Approach* **shall** contain three (3) examples of previous successful staffing efforts on contracts of similar magnitude.

### C.5.10 Subcontracting

TBD

### C.5.11 Award Fee Determination

The *Award Fee Determination Plan (AFDP)* (see Section J-3, *Award Fee Determination Plan*) establishes the basic procedures and criteria for the periodic evaluation of, and award fee determination for, DADS performance. The award fee provides a performance incentive for the Contractor and gives the Government a tool to identify and reward superior performance. The amount of award fee the Contractor earns is based on both an objective/quantitative and a subjective/qualitative evaluation by the Government of the quality of the Contractor's performance as measured against the criteria contained in the *AFDP*.

The *AFDP* includes a self-evaluation component that gives the Contractor the opportunity to assess its performance on the contract. The self-evaluation report will be used to determine the award fee. On a date specified by the Government after contract award, the Contractor **shall** deliver a self-evaluation report in accordance with the Government's *Award Fee Determination Plan*.

### C.5.12 Quality Management

The Government's *Quality Management Plan* (Government's QMP) (see Section J-12, *Quality Management Plan*) documents the approach for planning, implementing, recording, and assessing quality assurance and quality control activities of the DADS Program. Quality assurance and quality control apply to both processes and products.

The Contractor **shall** submit with the response to this solicitation the Contractor's *Quality Management Approach* for ensuring that the Contractor provides high-quality products and services to the Government. The Contractor's *Quality Management Approach* **shall** describe the Contractor's quality system, including quality assurance and quality control policies, processes, products, roles and responsibilities, reviews, and reports. The Contractor's *Quality Management Approach* **shall** integrate with the Contractor's system life cycle and describe the application of the Contractor's quality system as it applies to the implementation of the Contractor's proposed solution. The Contractor's *Quality Management Approach* **shall** adhere to SEI CMMI Level 3 for software engineering.

During Phase 1, Transition Planning, the Contractor **shall** observe, interface with, and work with the incumbent workforce, the Government, and other key DADS personnel to gain in-depth knowledge of the DADS Program quality approach and requirements.

No later than end of Phase 1, Transition Planning, the Contractor **shall** deliver the Contractor's QMP. The Contractor's QMP **shall** be derived from the Contractor's *Quality Management Approach* and tailored to reflect its in-depth knowledge of the DADS Program quality approach and requirements. The Contractor's QMP **shall** include the activities, roles and responsibilities, work products, resources, events, schedules, reviews, and reports of the Contractor's quality system to be used in Phase 2-Transition and Phase 3-Production. The Contractor's QMP **shall** adhere to SEI CMMI Level 3 for software engineering.

The Contractor **shall** use the quality management processes described in the Contractor's QMP during the period of performance and evolve the processes, as necessary, to adapt to the Government's business needs.

The Government and the Contractor **shall** conduct a review of the Contractor's QMP as part of the annual proposal process to ensure the continued effectiveness of the Contractor's quality management processes.

#### **C.5.13 Risk Management**

Risk Management identifies, mitigates and monitors risks associated with the DADS Program. The Contractor is responsible for tracking and mitigating risks associated with activities under the Contractor's control and risks that the Government directs the Contractor to monitor.

The Contractor **shall** provide with the response to this solicitation a *Risk Management Plan* that follows the guidelines in NIST Special Publication 800-30 and complements the Government's *Risk Management Plan* (see section J-11, *Risk Management Plan*). The *Risk Management Plan* **shall** include the Contractor's processes for identifying, determining the impact of, tracking and mitigating risks. The Contractor **shall** hold a joint Risk Management meeting with the Government at least quarterly and, as requested, participate in the Government's Risk Management meetings. In addition, the Contractor **shall** review and update as necessary the *Risk Management Plan* on annual basis.

#### **C.5.14 Change Management**

The Government's *Change Management Strategy* (Government's *CMS*) (see Section J-10 *Change Management Strategy*) documents the Government's vision on planning, implementing, recording, assessing, and approving changes to the scope, and technical, cost, and schedule baselines of the DADS Program.

The Contractor **shall** submit with the response to this solicitation the Contractor's *Change Management Approach* that describes the policies, processes, products, roles and responsibilities, reviews, and reports necessary for controlling and managing proposed changes. The Contractor's *Change Management Approach* **shall** integrate with the Contractor's system life cycle and the Contractor's management decision-making processes.

During Phase 1, Transition Planning, the Contractor **shall** observe, interface with, and work with the incumbent workforce, the Government, and other key DADS personnel to gain in-depth knowledge of the DADS Program change management processes and requirements.

No later than end of Phase 1, Transition Planning, the Contractor **shall** deliver the Contractor's *Change Management Plan*. The Contractor's *Change Management Plan* **shall** be derived from the Contractor's *Change Management Approach* and tailored to reflect the Contractor's in-depth knowledge of the DADS Program change management processes and requirements. The Contractor's *Change Management Plan* **shall** establish the processes and work products for documenting and controlling changes to DADS Program baselines. The change control process **shall** consider risk, cost, and schedule impacts. The Contractor's *Change Management Plan* **shall** include the activities, roles and responsibilities, work products, resources, schedules, reviews, and reports of the Contractor's change management processes to be used in Phase 2-Transition and Phase 3, Production.

The Contractor **shall** use the change management processes described in the Contractor's *Change Management Plan* during the contract and evolve the processes, as necessary, to adapt to the Government's business needs.

The Government and the Contractor **shall** conduct a review of the Contractor's *Change Management Plan* as part of the annual proposal process to ensure the continued effectiveness of the Contractor's change management processes.

#### **C.5.15 Performance Measures**

The DADS Program uses a performance-based strategy for conducting work and contracting for services. Outcome-oriented goals and objectives exist for the DADS Program, with quantitative business and technical metrics derived from these objectives. Qualitative measures provide a balance against quantitative measures when assessing the Contractor's performance. The metrics are used to determine whether DADS Program objectives are being achieved and assess the Contractor's performance. Metrics are used to determine award fees, justify the granting of incentives, and justify the assessment of penalties. Metrics are used to monitor the progress of contractual work and facilitate oversight by the Government.

The Government's *Performance Measures* (see Section J-5, *Performance Measures*) provides DADS performance metrics, identifies what needs to be measured to assess program and Contractor performance, and traces performance to program goals and objectives. The Government's *Performance Measures* do not include specific target values to be obtained or baseline values from which improvements can be measured. Specific target values and baseline values will be negotiated after contract award.

The Contractor **shall** submit with the response to this solicitation the Contractor's *Performance Measurement Approach* that describes the Contractor's performance measures, analysis techniques, processes, products, roles and responsibilities, reviews, and reports. The Contractor's *Performance Measurement Approach* **shall** integrate with the Contractor's system life cycle and describe the application of the Contractor's performance measures as they relate to the Contractor's proposed technical approach.

During Phase 1, Transition Planning, the Contractor **shall** observe, interface with, and work with the incumbent workforce, the Government, and other key DADS personnel to gain in-depth knowledge of DADS Program performance measures and performance reporting requirements and derive, as applicable, measurement baselines and thresholds from DADS Program historical data. The Contractor **shall** negotiate with the Government in the selection and establishment of the performance measures, baseline values, and variance thresholds to be applied in the assessment of the Contractor's performance.

No later than the end of Phase 1, Transition Planning, the Contractor **shall** deliver the Contractor's *Performance Measurement Plan*. The Contractor's *Performance Measurement Plan* **shall** be derived from the Contractor's *Performance Measurement Approach* and tailored to reflect the Contractor's in-depth knowledge of DADS Program outcome-oriented goals, objectives, and performance measures. The Contractor's *Performance Measurement Plan* **shall** describe the processes, integrated with DADS operational functions, that collect, verify, and analyze performance data as well as report variances, root causes, trends, issues, and corrective and preventive actions. The Contractor's *Performance Measurement Plan* **shall** describe individual measures, measurement baselines (established from industry standards or, as applicable, derived from DADS Program historical data), and favorable and unfavorable measurement variance thresholds.

The Contractor's *Performance Measurement Plan* **shall** include the activities, roles and responsibilities, work products, resources, events, schedules, reviews, and reports of the Contractor's performance measurement system to be used in Phase 2-Transition and Phase 3-Production. The Contractor **shall** use the performance measurement processes described in the Contractor's *Performance Measurement Plan* during the period of performance and evolve the processes, measures, and baselines, as necessary, to adapt to the improvements in DADS Program processes, advancements in technology, and the evolution of the Government's business needs.

The Government and the Contractor **shall** conduct a review of the Contractor's *Performance Measurement Plan* as part of the annual proposal process to ensure the continued effectiveness of the Contractor's performance measurement processes.

## C.6 OPTION FOR REPLACEMENT SYSTEM

The Government recognizes that DADS system components are approaching obsolescence. Therefore, this solicitation requires the Contractor to propose, as an option, replacement of existing systems to form an integrated solution. A replacement system can comprise new infrastructure hardware and software, new applications, and/or a different architecture. A replacement system also can include re-engineered DADS systems, processes and procedures. This option can apply to a subset or all components of DADS. For example, a Contractor may propose to replace the DADS tabulation component.

The inclusion of an option in the awarded contract implies no obligation on the Government's part to exercise the option. It is the Government's intent to have the ability to exercise this option anytime during the nine (9)-year, nine (9)-month term of the contract. If the Government exercises the Option for Replacement System more than twelve (12) months after contract award, the Contractor and the Government may review the option for technological relevancy and may renegotiate the option.

A Contractor's proposed replacement systems **shall** satisfy all the requirements stated in the SRD (see J-1, *System Requirements Document*), and the RTM (see J-2, *Requirements Traceability Matrix*) and this Performance Work Statement. Transition from existing systems to replacement systems **shall** be accomplished with minimal disruptions to the Government's Business Operations. The Contractor's proposal **shall** include recommendations for optimal timing for the development and implementation of a replacement system. The Contractor's proposed replacement systems **shall**:

- Improve economies and efficiencies, thus justifying replacement of DADS
- Support parallel operations to ensure that data offered on current DADS systems are continually available to customers
- Include documentation on the proposed physical and logical architecture
- Include training materials and an adequate help function
- Include a Transition Plan that describes (1) the cutover process from a current to a proposed system and (2) the transition of data from a current to a proposed system, and (3) the eventual retirement of a current DADS system
- Accommodate current data and data products and be flexible enough to easily expand to accommodate new census and survey data



- Lay the groundwork for an integrated Census Bureau Web presence
- Demonstrate the Contractor's awareness of technology advances
- Identify risks, challenges and mitigations related to transition from a current system to a proposed system
- Include creative, user-friendly ways to present complex data
- Be scaleable and flexible, with the ability to support tabulation and dissemination for additional censuses and surveys
- Enable the Census Bureau to support the Federal and state agencies in planning for and responding to national emergencies

### C.7 LIST OF CONTRACT DELIVERABLE DOCUMENTS

Table C.7-1 lists contract deliverable documents described in this Performance Work Statement. This list does not include deliverables that are specific to this solicitation.

**C.7-1 Contract Deliverable Documents**

Document	Status in Section C
Change Management Plan	C.5.14
Configuration Management Plan	C.4.5.1
Continuity of Operations Plan	C.4.5.1
Contract Performance Report	C.5.5
DADS Architecture Model	C.4.5
Earned Value Management Plan	C.5.5
Performance Measurement Plan	C.5.15
Program Management Plan	C.5
Program Management Review	C.5.2.1
Master Project Schedule	C.5.4
Quality Management Plan	C.5.12
Requirements Assessment Report	C.4.3
Requirements Traceability Matrix	C.4.3
Risk Management Plan	C.5.13

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Document	Status in Section C
Security Plans	C.4.6
Self-Evaluation Report	C.5.11
Staffing Plan	C.5.9
System Life Cycle Management Plan	C.4.4
System Performance and Capacity Plan	C.4.5
System Requirements Specification	C.4.3
Transition Plan for Phase 2 and Phase 3	C.5.3

[END OF SECTION C]